• PRINTER RUSH • (PTO ASSISTANCE)

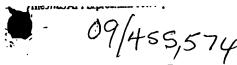
Application :	0914555	Examiner:	lohnsm	GAU:	1725				
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NOTE: This form will be included as part of the official USPTO record, with the Response document coded as XRUSH.

REV 10/04









8th Data Sheet



UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office

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SERIAL NUMBÉR , 19/455,574	FILING DATE 12/06/1999 RULE _	CLASS 442		OUP ART UNIT 1771		TORNEY CKET NO. 2/991620				
APPLICANTS AALBERTUS PIETER KROESBERGEN, VEENENDAAL, NETHERLANDS;										
** CONTINUING DATA **********************************										
** FOREIGN APPLICATIONS ************************************										
-* 01/11/2000 Foreign Priority claimed 35 USC 119 (a-d) conditionet Verlified and	Allowance	NETHERLA	Y DRA		TOTAL LAIMS 30	INDEPENDENT CLAIMS 2				
Acknowledged Examiner's Signature Initials ADDRESS RUSSELL D ORKIN 700 KOPPERS BUILDING 436 SEVENTH AVENUE PITTSBURGH ,PA 152191818										
TITLE SUBSTRATE WITH SUPER-ABSORBENT MATERIAL, METHOD FOR MANUFACTURE THEREOF AND USE										
FILING FEE FE	FEES: Authority has been given in Paper Noto charge/credit DEPOSIT ACCOUNT Nofor following:			☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other						
				☐ Credit						

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PATENT APPLICATION Atty. Docket No. 702/991620

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

AALBERTUS PIETER KROESBERGEN

SUBSTRATE WITH

SUPER-ABSORBENT MATERIAL.

Serial No. Not Yet Assigned

METHOD FOR MANUFACTURE

THEREOF AND USE

Filed Concurrently Herewith

Pittsburgh, Pennsylvania

December 6, 1999

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents Washington DC 20231

Sir:

Prior to initial examination, please amend the aboveidentified patent application as follows:

IN THE SPECIFICATION:

Page 1, after the title and before line 1, insert the following:

-This is a division of U.S. Patent Application Serial now us Pat 5,998,312 No. 08/875,237, filed September 9, 1997

BACKGROUND OF THE INVENTION

1. Field of the Invention

Page 1, before line 6, insert the following heading:

Description of the Related Art

Page 2, before line 8, insert the following heading:

SUMMARY OF THE INVENTION

Page 2, before line 22, insert the following:

-BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 shows a schematic diagram of preparatory steps for manufacturing a super-absorbent powder according to prior art; and

SUBSTRATE WITH SUPER-ABSORBENT MATERIAL, METHOD FOR MANUFACTURE THEREOF AND USE

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The present invention relates to a substrate provided with a super-absorbent material, to a method for the manufacture thereof, a method for manufacturing the super-absorbent material, in addition to the use of the substrate in different products.

Super-absorbent materials used for a variety of applications have existed for decades. Such super-absorbent materials are capable of binding a multiple of their > own weight in liquid, particularly water, sometimes up to five hundred times as much.

The super-absorbent capacity of such materials is based on swelling. The materials are at least partially cross-linked polymer chains containing a large number of COOH groups. Through contact with water or an aqueous 15 liquid hydrogen atoms will split off and COO groups will be formed. These negatively charged carboxylate groups repulse each other, whereby the cross-linked polymer forms a three-dimensional network, in which the water molecules are as it were captured. The water molecules 20 are held in the super-absorbent material by means of hydrogen bridges. The (partial) cross-linking of the material is essential for the effectiveness thereof, since "separate" polymer chains would simply dissolve in the liquid instead of absorbing it.

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Super-absorbent materials occur as powders or fibres. The advantage of powders is that they have a markedly higher absorption capacity than fibres due to their significantly larger surface area. Super-absorbent fibres are moreover more expensive.

Powders are usually applied to a substrate, which in turn is further processed into the end product. In particular cases powders are also directly processed. The great drawback of powder however is that it causes dusting and dust nuisance both in the manufacture of 35 substrates coated with powder and in the processing of